REMARKS

Applicant has carefully reviewed and considered the Office Action mailed on July 31, 2003, and the references cited therewith.

Claims 33-40 are added; as a result, claims 1, 2, and 4-40 are now pending in this application.

§103 Rejection of the Claims

Claims 1, 2, and 4-32 were rejected under 35 USC § 103(a) as being unpatentable over Dye (U.S. Patent No. 6,145,069).

Applicant respectfully traverses.

The claims of the present invention recite a single chip memory device having a volatile memory array and a compression and decompression engine. For example, claim 1 recites a memory device comprising, among other elements, a volatile main memory and a compression and decompression engine, in which all of the elements of the memory device are located in the same chip.

Dye discloses a technique to increase the speed of a multi-chip memory system in which the multi-chip memory system has a flash (non-volatile) memory located in one chip and a compression and decompression engine located in another chip.

The Examiner indicates that it would have been obvious to substitute a volatile memory of the claims of the present invention for the flash memory of the Dye's system when data non-volatility and memory cost are not required by the system. Applicant respectfully disagrees. Substituting the volatile memory of the claims of the present invention for flash memory of the Dye's system would destroy the function of the Dye's system. Further, substituting the volatile memory of the claims of the present invention for flash memory of the Dye's system would be contrary to the purpose pursued by Dye.

In the Dye's system, the flash memory stores instruction codes or other data. When power is disconnected from the Dye's system, the flash memory still retains the instruction codes or the data. A volatile memory, as claimed in the claims of the present invention, loses its data when power is disconnected from the volatile memory. Thus, if a volatile memory were to substitute for the flash memory of the Dye's system, the function of the Dye's system would be

destroyed because the volatile memory cannot retain the data. Further, even if volatile memory were to substitute for the flash memory of the Dye's system, the purpose of achieving a higher speed in the Dye's system would also be destroyed because volatile memory is generally slower than flash memory. Thus, substituting the volatile memory of the claims of the present invention for the flash memory of the Dye's system would destroy the function of the Dye's system and would also destroy the purpose pursued by Dye. Therefore, the reasons presented herein show that the claimed invention is not obvious over Dye.

Moreover, in determining the differences between the prior art and the claimed invention, the question under 35 U.S.C. 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious. *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 218 USPQ 871 (Fed. Cir. 1983); *Schenck v. Nortron Corp.*, 713 F.2d 782, 218 USPQ 698 (Fed. Cir. 1983); *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1143, 227 USPQ 543, 551 (Fed. Cir. 1985); MPEP § 2141.02.

Notwithstanding that the claimed invention of is not obvious over Dye based on all of the reasons presented above, Dye does not disclose or suggest the *combination* of a volatile memory *and* a compression and decompression as recited in claims of the present invention. Since Dye does not disclose or suggest the combination of a volatile memory and a compression and decompression as recited in claims of the present invention, the obviousness rejection fails.

In addition, Applicant respectfully traverses the single reference rejection under 35 U.S.C. § 103 since not all of the recited elements of the claims are found in Dye. For example, the *combination* of the "volatile main memory", the "compression and decompression", and "the volatile memory and the compression and decompression being located in the same chip" is not found in Dye. Since all the elements of the claim are not found in the reference, Applicant assumes that the Examiner is taking official notice of the missing elements (e.g., the *combination* indicated above). Applicant respectfully objects to the taking of Official Notice with a single reference obviousness rejection and, pursuant to M.P.E.P. § 2144.03, Applicant respectfully traverses the assertion of Official Notice and requests that the Examiner cite references in support of this position.

All of the above reasons demonstrate that the claims of the present invention are not obvious over Dye. Accordingly, Applicant requests that the rejection of claims 1-32 be reconsidered and withdrawn and that claims 1-32 be allowed.

New claims

Claims 33-40 are added. Applicant believes that claims 33-40 are patentable over Dye. Accordingly, Applicant requests that claims 33-40 be considered and allowed.

CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's representative at (612) 373-6969 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Mail Stop AF, Commissioner of Patents, P.O.Box 1450, Alexandria, VA 22313-1450, on this 29 day of October, 2003

Tina Kobrot

Name

Signature